

The Use of Whole Brain Teaching Method in Improving Students' Speaking Ability

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Abstract. The objective of this research was to find out the improvement of students' speaking skill teaching through Whole Brain Teaching method. The design used in this research was pre experimental. The population of this research was at the tenth grade students of SMK Negeri 2 OKU and the sample were which consisted of 36 students. The researcher used purposive sampling in taking the samples. The pre-test and post-test were used as the techniques for collecting the data. Instrument in this research was an oral speaking test. Based on the result of the pre- test, the mean score of the pre-test was 56.28. The result of the post-test the mean score was 68.89. Based on the statistical analysis, the researcher found that the value of Sig.= 0,000 less than the value of Significance level ($\alpha=0,05$ and $df = 35$). It means that there was significantly improvement in teaching speaking by Whole Brain Teaching method at the the tenth grade students of SMK Negeri 2 OKU.

Keywords: whole brain teaching, method, speaking ability

INTRODUCTION

Speaking is one way to communicate which ideas and thought delivered through message orally. According to Harmer (2007) speaking is the ability to speak fluently and presupposes not only knowledge features, but also ability to process information and language. When discuss about the process of information, it also relate to someone competency and language device has. But, speaking in different language especially foreign language is not easy one for someone. In learning English, speaking ability of a student is a reflection of his/her language competency. O'malley and Pierce's (1996) stated that speaking seems to be an important skill that the learners should acquire. It is very important in order to enable students to communicate effectively through oral language because the disability of the students to speak may lead them to unable to express ideas even in a simple form of communication, so the approach and method are specially formulated to meet the students need. Also, the goal and objectives are set up to achieve the language competence.

Speaking requires that learners understand when, why, and in what ways to produce language (sociolinguistic competence) (Harmer, 2001). As stated before, however, it is difficult to master the foreign language. Zhang (2009) argues that speaking remains the most difficult skill to master for the majority of English learners, and they are still incompetent in communicating orally in English. According to Ur (1996) there are many factors that cause difficulty in speaking, and they are inhibition, nothing to say, low or uneven participation, mother-tongue use. Furthermore, the common responses when the students were asked about their speaking problem are because of lack of vocabulary, anxiety, lack of grammar, self-confidence, motivation and others.

In this research, one method investigates to help the students' speaking problem. It is Whole Brain Teaching (WBT) Method, in terms of simulation and discussion here are using to improve the students speaking ability. This method had been introduced by Biffle (1999) in America. The method engages students throughout the whole learning process by activating both brain hemispheres. According to Biffle (2013), this method is used as a means to help teachers handle the challenging students in the classroom and attempt to optimize the learning process. It is called Whole Brain Teaching method since it is developed by taking into account the parts of the brain that works during the learning process. When the parts of the brain are activated, it will have impact on the deeper and more lasting of learning. In order to create a method in which both hemispheres can work simultaneously when the essential principles of WBT method -Class-Class, Teach-Ok, Mirror, Hands and eyes, and Scoreboard- are applied in the classroom, taking into account the use of imagination and fun.

Concept of Speaking

Speaking can be says as good or bad based on the aspects of speaking. Brown (2004) says that aspects of language are: (a) pronunciation is ways of words are pronounced. One who learns English as a foreign language must be able to use English pronunciation as well as other skills in the language (b) grammar is a rule system in a language. Grammar is a system of units and patterns of language, (c) vocabulary is the words used in a language. We can't speak at all without vocabulary, (d) fluency is the parameter of the speaking level of someone. Someone who has good fluency will perform or use the language easily and quickly in right order of language., and (e) comprehension denotes the ability of understanding the speaker's intention and general meaning Good comprehension refers to good understanding. If someone' language understanding is good, it will affect the speaking ability.

Language and Human Brain

According to Shalihah (2014) the brain is a component in human neural system . The human brain is divided into two hemispheres. The left hemisphere is the "logical brain" and is involved in language and analysis and the right hemisphere is the "creative brain," involved in daydreaming and imagination. The left hemisphere controls the right side of the body while the right hemisphere controls the left side. According to Budianingsih (2015), in the brain all subsystems are related to one another and are an integrated, called the language use system without the brain, there would be no language. Human brain structure is the fundamental basis of the relationship between language and the brain.

The Concept of Whole Brain Teaching

According to Asmayanti and Amalia (2014) Whole Brain Teaching is a method how to attract the attention of the students so they are more focus on material provided by the teacher in the teaching process. Biffle (2013) explains Whole brain teaching method combines attributes of direct instruction and cooperative leaning into one system of strategies designed to be centered around student learning. According to Mukrimaa (2014) This method is involved the learning principle which divided into three parts which is visual, verbal and kinesthetic.

Whole Brain Teaching method is first introduced in 1999 by Chris Biffle, Jay Danderfin, and Chris Rekstad. The identical term often referred to Whole Brain Teaching is Power Teaching and it is used as a means to help teachers handle the challenging students in

classroom and an attempt to optimize the learning process. It is called Whole Brain Teaching approach since it is developed by taking into account the parts of the brain that works during the learning process such as visual cortex (seeing gestures), motor cortex (making gesture), brocas area (verbalizing lesson), wernicke's area (hearing a lesson) and the classroom. It is important that the teacher organize and manage the classroom as an effective learning environment. When these parts of the brain are activated, it will have impact on the deeper and more lasting of learning (Biffle, 2013). It is believed that when a learner's whole brain is involved during learning process, there is not any mental area left for challenging behavior and in turns will help the learner to fully engage and involve in the learning process.

Teaching Activities in Whole Brain Teaching Method

Biffle (2013) highlights powerful teaching techniques known as the big seven with relevant brain information: (a) Class-Yes; Our primary attention – getter activates the prefrontal cortex, the brain's boss. The prefrontal cortex controls decision making, planning and focus of attention. Little if any learning can take place if the prefrontal cortex is not engaged. Think of the Class-Yes as a brain switch that readies students for instruction, (b) The Five Classroom Rules; WBT utilized five classroom rules. Each rule not only efficiently activate five areas of every student's brain (visual cortex, motor cortex, Broca's area, and limbic system) but also, because they are frequently rehearsed, involve the brain's mirror neurons. Orderly behaviour creates the mirroring of orderly behaviour which causes teachers and students to mirror each others' happy face, (c) Teach-Okay; Brain and learning research indicates that students learn the most when they are involved in teaching each other. By emphasizing energetic, instructional gesturing the engage, during Teach-Okay sessions, five of students' brain areas: visual cortex (seeing gestures), motor cortex (making gestures), broca's area (verbalizing a lesson), wernicke's area (hearing a lesson), and the limbic system (giving emotional content to a lesson). A key component of Teach-Okay method is that teacher must speak briefly, often not more than 30 seconds, before asking students to rehearse the lesson with each other. The longer teachers talk, the more students teacher lose Conversely, the more students repeat lessons to each other, especially while using descriptive gestures, the more students are engaged and the more thoroughly lessons are embedded in long term memory. (d) Hands and eyes; An experienced WBT instructor, Hands and Eyes creates instant silence, eliminating all learning distractions; the prefrontal cortex takes control of brain activity focusing the visual cortex and the auditory cortex on the instructor's lesson, (e) Mirror; Many brain scientists believe that people learn by mirroring the gestures and activities of others. They have identified mirror neurons scattered throughout the brain that are activated by mimicking the behavior they observe, (f) Switch; Some student talk easily, often too easily. Other student fall in to the role of passive listeners. In terms of brain structure, classes are often divided between those who are Brocaians (speakers) and Wernikites (listeners). By using Switch, an instructor can easily teach listening skills to the speakers and speaking skills to the listeners, (g) The Scoreboard; It is the fastest, most entertaining and for limited teaching budgets, the cheapest motivational system in elementary education. Wired directly into the brains's emotional center, the lymbic system, the scoreboard replaces marbles in jar, candy, table points, play money and other classroom reward strategies. When an instructor marks a smiley or a frowny on the scoreboard, student feel a small, positive or negative, emotional jolt. By enlivening the marking routine with " mighty oh yeah" or a "mighty groan" the reward circuitry in the lymbic system is activated.

METHOD

This research use pre-experimental research design by using pre-test and post-test with quantitative approach. Creswell (2012) explains that experimental researchers test and idea (or practice or for certain influence toward the other on the controlled condition. The writer will conduct a pre-experimental design. Pre-experimental design is referred to as a single group pretest-posttest. Pre-experimental study is the research procedure that provides no control group or no way of equating the groups that are used. In a study employing the design a single group of subjects is observed, the treatment is administered and the group is observed again after treatment. The effect of the treatment is judged by the change in observed scores between the pretest and posttest. This design of this research is an experimental research design using quantitative approach with one group pre-test and post-test. The population of this study was conducted to the tenth grade students of SMK N 2 OKU in academic year 2020/2021. and the sample were which consisted of 36 students. The researcher used purposive sampling in taking the samples.

In this research, the data collected through oral speaking test both pre-test and post-test. The treatment of applied whole brain teaching method conducted in 6 (six) meetings. To analyze the students' speaking performance score through pre-test and post-test consider to rubric of Brown (2004). The rubric considers five aspects which should be scored: pronunciation, grammar, vocabulary, fluency, and comprehension. Further analysis the researcher use paired sample t-test by using statistical method to ensure the effectiveness and to prove whether there are any significant differences between the students' score of pretest and posttest, which were conducted before and after the students taught by whole brain teaching method in teaching speaking

FINDINGS AND DISCUSSION

The result of Pre-test

The following table is the analysis of the descriptive statistics of the mean and standard deviation of pre-test.

Table 1. Descriptive statistics of students speaking score in pre-test

	N	Minimum	Maximum	Mean	Std. Deviation
PRE TEST	36	42	64	56,28	5,800
Valid N (listwise)	36				

Based on the descriptive statistics on table 1, it was found that the mean of the students' pre-test score was 56,28. However, the standard deviation was 5,800. The lowest score was 42 and the highest score was 64.

The Result of Students' Post-Test

The researcher used SPSS to check descriptive statistics of the mean and standard deviation of speaking in post-test.

Table 2. Descriptive statistics of students speaking score in post-test

	N	Minimum	Maximum	Mean	Std. Deviation
POST TEST	36	56	80	68,89	5,666
Valid N (listwise)	36				

Based on the descriptive statistics on table 2, it was found that the mean of the students' post-test score was 68,89. However, the standard deviation was 5,666. The lowest score was 56 and the highest score was 80.

Next, the researcher used paired sample t-test to found whether or not there was significance in speaking between pre-test and post-test. The result could be seen in following table.

Table 3. paired samples statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 POST TEST	68,89	36	5,666	,944
PRE TEST	56,28	36	5,800	,967

Based on the table 3, the mean score of pre-test was 56,28 and the mean score of post-test was 68,89. It means that the score of post-test more than pre-test.

Table 4. Paired samples correlations

	N	Correlation	Sig.
Pair 1 POST TEST & PRE TEST	36	,664	,000

Based on table 4, the paired sample correlation between pre-test and post-test was 0, 664 with the N 36 students and the significance level was 0.000.

Table 5. Paired sample test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 POST TEST PRE TEST	12,611	4,704	,784	11,019	14,203	16,085	35	,000

Based on the Table Paired Samples Test, it was found that the mean was 12,611 and the value of t-test 16,085 with degree of freedom ($df = n-1$) = 35, and the value of Sig. (2-tailed) 0,000 less than the significance level ($\alpha = 0.05$). Based on the explanation above, the researcher concluded that there was a significant improvement in teaching speaking through Whole Brain Teaching method at the tenth grade students of SMK Negeri 2 OKU.

CONCLUSIONS

The researcher conclude that the implementation of Whole Brain Teaching method in teaching speaking at the tenth grade students of SMK Negeri 2 OKU had been given good effect and contribution to the students' achievement in speaking skill. The students'

achievement in pre-test and post-test were showed the progress students' speaking skill that Whole Brain Teaching method was one of good way for them to practice their speaking. So, Whole Brain Teaching method was significantly improve students' speaking skill.

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